



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0419; Directorate Identifier 2012-NM-129-AD]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain Bombardier, Inc. Model DHC-8-400 series airplanes. This proposed AD was prompted by reports of excessive wear on the lower latch surface of the main landing gear (MLG) up-lock hook. This proposed AD would require revising the maintenance program. We are proposing this AD to detect and correct up-lock hooks worn beyond the wear limit, which could prevent the successful extension of the MLG using the primary landing gear extension system, which in combination with an alternate extension system failure could result in the inability to extend the MLG.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd.qseries@aero.bombardier.com; Internet <http://www.bombardier.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Cesar Gomez, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7318; fax (516) 794-5531.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2013-0419; Directorate Identifier 2012-NM-129-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2012-21, dated June 25, 2012 (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

The main landing gear up-lock assembly part number (P/N) 46500-7 was introduced as the terminating action to [Canadian] AD CF-2002-13R2. The main landing gear up-lock assembly P/N 46500-9 was later introduced as a product improvement and has the same up-lock hook as P/N 46500-7.

Due to a delay in the release of the new Maintenance Review Board (MRB) task associated with P/Ns 46500-7 and 46500-9, it is anticipated that in-service aeroplanes may be operating with up-lock hooks worn beyond the wear limit. An up-lock hook worn beyond the wear limit could prevent the successful extension of the main landing gear using the primary landing gear extension system. In combination with an alternate extension system failure, this could result in the inability to extend the main landing gear.

This [Canadian] AD mandates the incorporation of the MRB task number 323100-202.

MRB task number 323100-202 adds a functional check of the main landing gear up-lock assembly latch to the maintenance program. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Bombardier, Inc. has issued the following service information. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

- Bombardier Repair Drawing 8/4-32-0190, Issue 2, dated January 14, 2013.
- Bombardier Q400 All Operator Message No. 515, DHC8-400-AOM-515, Revision 2009-06-24, dated April 4, 2012.
- Bombardier Temporary Revision MRB-66, dated December 7, 2011, to Section 1-32, "Systems/Powerplant Maintenance Program," of Part 1 of the Bombardier

Dash 8 Series 400 Maintenance Requirements Manual, PSM 1-84-7.

FAA’s Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 83 products of U.S. registry. We also estimate that it would take about 1 work-hour per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$7,055, or \$85 per product.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by

prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

Bombardier, Inc.: Docket No. FAA-2013-0419; Directorate Identifier 2012-NM-129-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes; certificated in any category; serial numbers 4001 and subsequent; equipped with a main landing gear (MLG) up-lock having part number 46500-7 or 46500-9.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing gear.

(e) Reason

This AD was prompted by reports of excessive wear on the lower latch surface of the MLG up-lock hook. We are issuing this AD to detect and correct up-lock hooks worn beyond the wear limit, which could prevent the successful extension of the MLG using the primary landing gear extension system, which in combination with an alternate extension system failure could result in the inability to extend the MLG.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Maintenance Program Revision

Within 30 days after the effective date of this AD, revise the maintenance program to incorporate the information specified in Task Number 323100-202 as specified in Bombardier Temporary Revision MRB-66, dated December 7, 2011, to Section 1-32, "Systems/Powerplant Maintenance Program," of Part 1 of the Bombardier Dash 8 Series 400 Maintenance Requirements Manual, PSM 1-84-7. Do the initial functional check at the applicable time specified in paragraph (g)(1), (g)(2), or (g)(3) of this AD.

Note 1 to Paragraph (g) of this AD: The maintenance program revision required by paragraph (g) of this AD may be done by inserting a copy of Bombardier Temporary Revision MRB-66, dated December 7, 2011, to Section 1-32, "Systems/Powerplant Maintenance Program," into Part 1 of the Bombardier Dash 8 Series 400 Maintenance Requirements Manual, PSM 1-84-7. When this temporary revision (TR) has been

included in general revisions of the PSM, the general revisions may be inserted in the PSM, provided the relevant information in the general revision is identical to that in TR MRB-66.

(1) For up-lock hook assemblies that have 15,000 total flight cycles or more as of the effective date of this AD: Do the initial functional check within 600 flight cycles after the effective date of this AD.

(2) For up-lock hook assemblies that have 12,000 total flight cycles or more, but less than 15,000 total flight cycles, as of the effective date of this AD: Do the initial functional check within 1,200 flight cycles after the effective date of this AD, but before the accumulation of 15,600 total flight cycles on the assembly.

(3) For up-lock hook assemblies with less than 12,000 total flight cycles as of the effective date of this AD: Do the initial functional check within 6,000 flight cycles after the effective date of this AD, but before the accumulation of 13,200 total flight cycles on the assembly.

(h) Method of Compliance

For any up-lock assembly outside the wear limit specified in the Inspection Notes of Bombardier Repair Drawing, 8/4-32-0190, Issue 2, dated January 14, 2013; and on which the up-lock roller on the MLG shock strut is free to rotate and free of any damage or flat spots on the riding surface: In lieu of doing the initial functional check, as required by paragraph (g) of this AD, accomplishing the actions specified in paragraphs (h)(1) through (h)(4) of this AD in accordance with Bombardier Repair Drawing, 8/4-32-0190, Issue 2, dated January 14, 2013, may be done. However, as of 36 months after the

effective date of this AD, the initial functional check must be done in accordance with the requirements of paragraph (g) of this AD.

(1) Do a detailed inspection for deformation, corrosion, or broken springs of the up-lock assembly of the MLG. If deformation, corrosion, or broken springs are found, before further flight, replace the spring.

(2) Measure the groove depth of the lower latch working surface.

(i) If the groove depth is greater than or equal to 0.022 inch, before further flight, replace the up-lock assembly part number (P/N) 46500-7 or 46500-9 with a new assembly, or an assembly with a new or reworked hook installed.

(ii) If the groove depth is greater than 0.017 inch and less than or equal to 0.0215 inch: Within 600 flight cycles after accomplishing the measurement, do the up-lock inspection as specified in paragraph (h)(1) and (h)(2) of this AD, and repeat the inspections thereafter at intervals not to exceed 600 flight cycles. Replacing the up-lock hook with a new or reworked hook, or installing a new up-lock assembly, terminates the repetitive inspections.

(iii) If the groove depth is between 0.0215 and 0.0220 inch: Within 300 flight cycles after the measurement, replace the up-lock hook with a new or reworked hook, or with a new up-lock assembly.

(3) Unless already accomplished, within 6,000 flight hours or 36 months after doing the initial inspection specified in paragraph (h)(1) of this AD: Replace the up-lock assembly with a new assembly, or a new or reworked hook installed, in accordance with

the Inspection Notes of Bombardier Repair Drawing 8/4-32-0190, Issue 1, dated April 2, 2012.

(4) Inspect the up-lock roller on both main gear shock struts for freedom of movement.

(i) If the up-lock roller cannot be freely rotated by finger force, or any flat spots exceeding 0.060 inch (across the flats) are found, before further flight, replace the up-lock roller.

(ii) Repeat the inspections thereafter at intervals not to exceed 50 flight hours until the up-lock has been replaced with a new assembly, or a new or reworked up-lock hook has been installed. Replacing the up-lock with a new assembly, or installing a new or reworked up-lock hook, terminates the repetitive inspection requirements.

(i) No Alternative Actions or Intervals

After accomplishing the revision required by paragraph (g) of this AD, no alternative actions (e.g., inspections) or intervals may be used, except as provided by paragraph (h) of this AD unless the actions or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (k) of this AD.

(j) Reporting

Submit a report of the initial functional check findings at the applicable time specified in paragraph (j)(1) or (j)(2) of this AD using Form No ISETS-03-AOM Q400 in Bombardier Q400 All Operator Message DHC8-400-AOM-515, Revision 2009-06-24,

dated April 4, 2012. Send the report to Bombardier, Inc., Technical Help Desk, phone: 416-375-4000; fax: 416-375-4539; e-mail: thd.qseries@aero.bombardier.com.

(1) If the functional check was done on or after the effective date of this AD: Submit the report within 30 days after the functional check.

(2) If the functional check was done before the effective date of this AD: Submit the report within 30 days after the effective date of this AD.

(k) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) **Alternative Methods of Compliance (AMOCs):** The Manager, New York Aircraft Certification Office, ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) **Airworthy Product:** For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of

Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) **Reporting Requirements:** A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(l) Related Information

(1) Refer to MCAI Canadian Airworthiness Directive CF-2012-21, dated June 25, 2012; and the service information specified in paragraphs (l)(1)(i), (l)(1)(ii), and (l)(1)(iii) of this AD for related information.

(i) Bombardier Repair Drawing 8/4-32-0190, Issue 2, dated January 14, 2013.

(ii) Bombardier Q400 All Operator Message No. 515, DHC8-400-AOM-515, Revision 2009-06-24, dated April 4, 2012.

(iii) Bombardier Temporary Revision MRB-66, dated December 7, 2011, to Section 1-32, "Systems/Powerplant Maintenance Program," of Part 1 of the Bombardier Dash 8 Series 400 Maintenance Requirements Manual, PSM 1-84-7.

(2) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd.qseries@aero.bombardier.com; Internet <http://www.bombardier.com>. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on May 6, 2013.

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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